



Legislative Fiscal Bureau

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Joint Committee on Finance

Paper #535

Water Utility Training and Data Reporting (Public Service Commission -- Departmentwide and Energy Programs)

[LFB 2021-23 Budget Summary: Page 506, #4]

CURRENT LAW

The Public Service Commission (PSC) is responsible for regulating the 575 drinking water utilities in Wisconsin. Regulatory responsibilities include general powers related to rate setting, financial oversight, and compliant mediation. There are 180 water utilities with a customer base of at least 3,300 residents in Wisconsin, and these utilities represent approximately 85% to 90% of all water utility customers.

DISCUSSION POINTS

Water Loss Training

1. Water utilities annually report to PSC on the amount of water produced and revenue generated from that water. In 2019, PSC reports water utilities produced approximately 182 billion gallons of water, 33.5 billion gallons of which did not result in revenue generated for the utility. Such "non-revenue" water may come from "real losses" due to water main and service line breaks or leaks, or "apparent losses" from incorrect reporting due to faulty water meter measurements, data handling errors, or unauthorized use. While real losses may require costly repairs or new infrastructure to resolve, apparent losses may be more quickly addressed once identified.

2. PSC staff suggest that a lack of training limits the ability of local water utilities to identify water loss issues. Further, PSC staff report that a majority of water utilities determined to be financially stressed are those that have high rates of non-revenue water production. PSC staff contend improved data auditing and analysis would allow utilities to identify and limit apparent losses and the resulting non-revenue water, and reduce the need for new expenditures for production and distribution

infrastructure.

3. 2021 Assembly Bill 68/Senate Bill 111 would authorize the Commission to expend up to \$900,000 PR each year on an ongoing basis to conduct outreach and train water utility administrators on how to implement industry best practices for audit and analysis of water utility data to conserve water and reduce water utility costs. However, the administration indicates that it intended to provide \$900,000 PR in 2022-23 in one-time funding for this initiative. Funding would be provided from the PSC's general utility regulation appropriation, which is funded from assessments on regulated utilities proportional to their gross revenues.

4. PSC staff report they intend to operate the water utility training program in a similar manner to a pilot program operated in 2016 with six water utilities, of the cities of Cudahy, Kenosha, Mequon, Milwaukee, Oak Creek, and Port Washington. The pilot program consisted of two days of trainings covering principles of water utility data auditing and analysis to help utilities identify conservation and cost savings opportunities associated with non-revenue water. Analysis prepared as part of the trainings identified a range of apparent losses for each utility, equal to 9.8 gallons of water per connected customer per day for Cudahy, 10.2 for Kenosha, 6.0 for Mequon, 2.7 for Milwaukee, 7.5 for Oak Creek, and 2.7 for Port Washington. The pilot program was funded from grants from the Fund for Lake Michigan and the Great Lakes Protection Fund totaling \$50,000, equal to roughly \$8,300 per utility.

5. Based on experience gained from the 2016 pilot program, and continued development nationally in water loss training efforts, PSC staff estimate trainings would cost approximately \$5,000 to \$7,000 per utility, equal to \$900,000 to \$1,260,000, based on the 180 utilities in Wisconsin with more than 3,300 customers. PSC staff plan to contract with a third party to conduct trainings, and expect all trainings would take approximately 18 months to complete. Trainings would consist of two in-person or remote trainings and an additional two work sessions, with time allocated to utilities between sessions to practice skills learned during trainings on their operating datasets. The intended result of trainings will be that: (a) all utilities will have conducted a validated audit of their data; (b) utilities will have developed a utility-specific plan to address any deficiencies identified; and (c) utility staff will have the skills necessary to conduct subsequent audits independently.

6. It may be that better analytical techniques to identify and develop cost estimates of non-revenue water may enable and encourage utilities to reduce non-revenue water in the future. As non-revenue water from both real losses and apparent losses is reduced, water utility customers would realize cost savings from reduced water production and avoided costs associated with additional water service infrastructure. As proposed water utility trainings would be supported by general assessments passed on to utility customers, both the costs and benefits of such trainings would accrue directly to water utility customers on their bills. However, the relative magnitude and resulting net result of training costs and resulting benefits is unclear at this time. Additionally, as more reliable data reporting is developed, PSC would be better able to develop future cost-saving and conservation efforts. Given the potential cost-savings and water conservation opportunities associated with water loss training, the Committee could consider providing \$900,000 PR in 2022-23 in one-time funding from its utility regulation appropriation [Alternative A1].

7. Assuming an 18-month implementation timeline that would not begin until 2022-23, the

Committee could consider providing \$450,000 PR in one-time funding in 2022-23, and additional amounts could be considered during the 2023-25 biennial budget [Alternative A2]. The Committee could also take no action [Alternative A3]. Water utilities could still pursue such training individually as authorized operational expenses, which would also be passed on to the ratepayers of each utility.

Water Utility Data System

8. As part of the Commission's regulatory oversight functions, water utilities must annually report financial, operational, and water use data to the Commission. Further, PSC staff each year process approximately: (a) 65 conventional (more intensive) rate cases; (b) 80 simplified (less complex) rate cases; and (c) 60 construction, water investigation, and utility organization reviews. Further, water utility regulation staff collaborate with 10 to 30 utilities annually as part of water affordability, financial outreach, and conservation programs.

9. To track water utility operations and data and to process rate cases and other proceedings related to water utilities, the Commission maintains a database system that is outdated and is anticipated to not be supported in the future. AB 68/SB 111 would provide \$250,000 PR in 2021-22 in one-time funding to upgrade the Commission's water utility data system, and \$40,000 PR each year for ongoing costs related to a new data system. Funding would be derived from the Commission's utility regulation appropriation.

10. PSC staff report that an updated data system would allow the Commission to offer an online application process for water utilities seeking to initiate a proceeding before the Commission. This system is expected to: (a) facilitate more efficient processing of water utility proceedings; (b) improve public access to water utility data and Commission proceedings; (c) simplify filing procedures for utilities; (d) increase reporting accuracy; and (e) allow water utility regulatory staff to more effectively audit and correct financial and operational data submitted to the Commission. It is expected the benefits of a new data system for water utility regulation would accrue to water utilities, which would be able to more efficiently participate in Commission proceedings and meet reporting and other regulatory requirements. As funding for the new data system is proposed to be derived from assessments on utilities, it could be considered appropriate to provide \$290,000 PR in 2021-22 and \$40,000 PR in 2022-23 for a new water utility regulation data system [Alternative B1]. The Committee could also take no action [Alternative B2].

Water Utility Staffing

11. AB 68/SB 111 also provides 2.0 PR positions with \$152,200 PR in 2021-22 and \$194,300 PR in 2022-23. PSC reports one position would support design, maintenance, operation, and ongoing improvements related to the proposed new data system, and one position would support additional data analysis and collaboration efforts with water utilities resulting from utility training efforts. While the majority of funding in the 2021-23 biennium for the water utility data system would represent one-time costs, PSC staff argue that ongoing maintenance and operation costs of the data system would require a full-time position to ensure continuity of implementation and continued improvements in the system.

12. Given the additional staff necessary to implement proposed water utility initiatives, the

Committee could consider providing 2.0 PR positions with \$152,200 PR in 2021-22 and \$194,300 PR in 2022-23 from the Commission's utility regulation appropriation [Alternative C1]. If the Committee elected to provide funding for only one of municipal utility trainings or the water utility data system, it could consider providing 1.0 PR position in \$76,100 in 2021-22 and \$97,200 in 2022-23 to support that initiative [Alternative C2]. Additional PSC staff time necessary to accommodate improved reporting and analysis by water utilities as a result of training efforts, and implementation efforts associated with a new data system, could be considered short-term in nature. Thus, the Committee could consider providing positions as four-year project positions and evaluate needs for permanent positions in future biennia [Alternative C4].

Utility Regulation Funding

13. In general, PSC costs related to regulation of utilities subject to PSC jurisdiction are passed on as assessments on those utilities, which in turn pass those costs on as a component of rates paid by customers for utility service. PSC allocates general operating costs as assessments on all utilities regulated by PSC in proportion to their gross revenues. PSC operations are funded almost entirely from these general assessments, which are collected as program revenue. Under the 2021-23 base budget, PSC is authorized \$15.7 million annually for utility regulation.

14. As a program revenue appropriation, the amounts in the schedule for utility regulation represent a cap on authorized expenditures for that purpose. PSC assesses utilities for actual costs incurred; therefore, both revenues and expenditures may not equal the budgeted amounts. This has regularly been the case in recent biennia, and PSC has underspent is authorized amount for utility regulation by an average of \$1.7 million from 2015-16 through 2019-20, including \$801,700 in 2018-19 and \$1,687,700 in 2019-20. Given currently authorized spending and unused authority, the Committee could consider taking no action [Alternatives A3, B2, and C5].

15. However, PSC staff contend that currently budgeted utility regulation funding provides them administrative flexibility necessary to maintain critical agency regulatory functions. PSC staff believe it is not appropriate to allocate currently budgeted funding for proposed water utility initiatives. As PSC only assesses utilities for actual expenditures, increased budget authority for water utility initiatives would not necessarily result in increased costs for utilities; rather, it could be viewed as providing additional flexibility in the event PSC's other regulatory costs did reach the authorization levels that would otherwise be provided for the 2021-23 biennium. If the Committee believed current funding levels gave sufficient flexibility to meet agency operational duties and still support proposed water utility initiatives, it could direct PSC to use existing funding for these proposals and provide 2.0 PR positions with no additional funding [Alternative C3]. Positions would receive full funding under standard budget adjustments for the 2023-25 biennium. If at any point during the 2021-23 biennium PSC authorized funding became insufficient to meet agency duties, the Committee could consider a request from PSC under s. 16.515 of the statutes for additional spending authority.

ALTERNATIVES

A. Water Loss Training

1. Provide \$900,000 PR in one-time funding in 2022-23 from the Commission's utility regulation appropriation to support water loss trainings for water utilities.

ALT A1	Change to Base
PR	\$900,000

2. Provide \$450,000 PR in one-time funding in 2022-23 from the Commission's utility regulation appropriation to support water loss trainings for water utilities.

ALT A2	Change to Base
PR	\$450,000

3. Take no action.

B. Water Utility Data System

1. Provide \$290,000 PR in 2021-22 and \$40,000 PR in 2022-23 from the Commission's utility regulation appropriation to support a new water utility regulation data system.

ALT B1	Change to Base
PR	\$330,000

2. Take no action.

C. Water Utility Staffing

1. Provide 2.0 PR positions with \$152,200 PR in 2021-22 and \$194,300 PR in 2022-23 from the Commission's utility regulation appropriation for staff to support proposed water utility initiatives.

ALT C1	Change to Base Funding	Positions
PR	\$346,500	2.00

2. Provide 1.0 PR position with \$76,100 PR in 2021-22 and \$97,200 PR in 2022-23 from the Commission's utility regulation appropriation for staff to support proposed water utility initiatives.

ALT C2	Change to Base Funding Positions	
PR	\$173,300	1.00

3. Provide 2.0 PR positions funded the Commission's utility regulation appropriation and direct the Commission to use existing expenditure authority to support the initiatives and positions.

ALT C3	Change to Base Positions	
PR		2.00

4. Specify that the position(s) be provided as four-year project position(s). (This alternative could be selected in addition to Alternatives C1, C2, or C3 above.)

5. Take no action.

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